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OBJECTIVES IN FARM WOODS MANAGEMENT  
IN THE CENTRAL HARDWOOD REGION <sup>1/</sup>

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Farm woods of the central hardwood region vary widely as to size and as to proportion of total farm area. On good Corn Belt land the woodland area within a county rarely averages more than 10 or 12 acres per 120-acre farm, but south of the glacial boundary the average rises in some counties to 30 or 40 acres per 80-acre farm. In many Corn Belt counties gross woodland area amounts to less than 5 percent; in many hill counties, it exceeds 50 percent. To focus this discussion, I have roughly estimated the average woods area on farms in different parts of the region, as follows:

- (1) Eastern Corn Belt, 10 - 12 percent.
- (2) Western Corn Belt (Prairie), 0 - 10 percent.
- (3) Old Glaciation (Illinoian), 10 - 20 percent.
- (4) Ohio Valley, better rough lands, 15 - 25 percent.
- (5) Ozarks, rougher hill country, 25 - 75 percent.

Composition and yield capacity vary just as widely, according to climate, site characteristics, and past treatment. Eastern Corn Belt woods contain good beech-maple stands and, where better drained, contain also oak-hickory stands, both good and poor. Toward the west, the Corn Belt has cottonwood, elm, ash, silver maple, and other species on the flood plains, and oak-hickory as the prevailing type on the uplands. The older glaciated areas, the soils of which are leached and often poorly drained, vary from poor pin oak or post oak flats to good beech-maple-poplar sites on rougher terrain. The better rough lands support stands varying from thin oak-hickory to excellent mixed hardwoods. The Ozark and Cumberland regions bear pine and oak-pine mixtures, also some fine stands of mixed hardwoods.

Any classification of farm woods as to either area or composition must be rough, until we have well-prepared geographic and cover-type maps. Even then, since the pattern is so complex, it will be impracticable to lay down fixed rules for farm woods management.

In preparing to set up objectives in management for any farm woodland, we must deal first with the following question:

- (1) What is the general economy of the immediate territory?

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Certainly, farm woods will not play the same role in a rich corn belt county as in a rough hill county. In the first case, management is likely to be designed only to supply wood products needed for the farm. In the second, farming as such is likely to be only for subsistence, the major portion of the potential income being offered by the woods.

Corollary to the above is this question:

(2) What are the sustained-yield possibilities within a reasonable working circle?

In this regard also, there is a vast difference between areas. For example, a typical Corn Belt county of 300,000 acres has 30,000 acres of woods. At the rate of 200 board feet per acre per year, the county would produce 6 million feet of lumber annually, enough to run a good mill and supply the wood products necessary to the farm economy and local market. Not improbably, small quantities of specialty lumber such as black walnut or cherry could be produced and marketed. In a typical hill county of the same size but with 40 percent woodland, there are 120,000 acres of woods. Even at the low rate of 100 board feet per acre, these woods would yield 12 million feet of lumber per year. The wood requirements of farms, because of the much lower acreage of agricultural land, are much smaller in the hill country than in the Corn Belt, and the quantity of marketable products correspondingly much greater.

The possibility of profit from farm forestry depends on the market; and, conversely, market and primary and secondary manufacturing facilities have depended and will depend upon the volume and quality of wood available.

Discussion of sustained-yield possibilities leads to consideration of existing forest resources. We next ask ourselves, therefore:

(3) What is the general condition of the woods as regards growing stock and merchantable volume, and what are the possibilities for profitable woods management?

Particularly in the Corn Belt, the bulk of the woods are poorly stocked, overburdened with decadent, cull, and defective stuff, overcut, and overgrazed. Clearly, their rehabilitation will require time, good judgment, and in many cases cultural treatment. In the region as a whole, only a very small part of the total farm woodland area is in productive condition. Most of it cannot be brought into production without considerable investment of time and money and brains.

In this region money profit is not usually a primary motive in woods management, but in general the woods can and ought to contribute a considerable share of farm income in the form of materials to be used on the farm--lumber, posts, and fuel.

Where management for production of marketable logs and specialty woods is undertaken on the basis of very small wooded tracts forming a low percentage of total land area, it perhaps ought to be organized cooperatively. All the woods in a county, if pooled under a single management, might support a skilled manager and a primary manufacturing plant capable of turning out high-grade hardwood lumber. Commercial management by individual owners prevailingly results in a chaotic market and small opportunity to bargain, and thus offers little profit. In the hills, greater acreages and more compact units make cooperative management for market production more feasible than in the Corn Belt, where the wide distribution of production tends to prevent establishment of secondary manufacturing plants.

Another important consideration is the farm owner's will to practice forestry. With regard to objectives for any given locality, therefore, we ask:

(4) Is a tradition of forest economy present?

Most of the Midwest, we must agree, has little or no such tradition. Yet there are "cultural islands" where good woods practice goes hand in hand with good management of cropland. In such localities, encouragement and further refinement of management could develop very fine examples of profitable forestry and afford convincing proof to more backward communities that farm forestry pays.

In parts of the Corn Belt, one misses entirely any will toward woods management. Where soils are deep and rich, the conscious choice has always been to clear and plow. I doubt the wisdom of much effort toward bringing about a reversal of this tendency, even though it can be shown that a woodland is typically a profitable part of a Corn Belt farm. Choices as to future land-use policies are going to be made on the clear basis of the desires, not merely the needs, of farm owners. Foresters' efforts can be more profitably expended where growing stock still exists and where some of the people have at least a background of woods economy.

There is, however, some territory where, although forests never were plentiful, farmers do want and need woods, for production and for shelter. We ask, therefore:

(5) If planting is needed, what should be planted?

Shall we plant for market or only for farm needs? The existing examples of successful planting for commercial production are generally confined to specialty woods such as black walnut. For farm posts, fuel, and lumber, such species as black locust, hardy catalpa, eastern red cedar, cottonwood, and the native pines are suggested; for shelter, conifers are preferable. Here again, choice depends on whether the objective is a permanent woods, reproducing itself, or single crops the harvesting of which will be followed by repeated plantings.

I trust I have succeeded in showing, briefly and roughly, that hard and fast rules for managing the farm woods cannot be formulated. What plan of management should be chosen depends in every case on the requirements and conditions of the land, of the community, and of the region, and on the individual owner's desires and circumstances. Each farm is a problem in itself. The general objective, we may be sure, is to produce wood for use and profit or to grow trees for shelter--not to grow trees just for the fun of it. Only a judicious combination of technical forestry, economics, and a large share of common sense can make productive and profitable management of farm woods a reality.